

CLAIMS

I claim:

5 1. A retractable side wing assembly adapted to be mounted on a
side of a road vehicle for clearing snow off a road surface, said side wing
assembly comprising a scraper having a frontward end pivotally secured to said
side of said vehicle and a rearwardly and outwardly extending free end, a
10 retracting member having a first end rotatably secured to a moving part of a
shock absorbing device and a second end rotatably secured either to said side of
said vehicle rearwardly of said scraper or to said scraper in proximity of said free
end, and a fixed part of said shock absorbing device rigidly secured either to said
15 scraper in proximity of said frontward end or to said vehicle rearwardly of said
scraper respectively, said shock absorbing device including an absorber member
rigidly secured to both said moving and fixed parts thereof, said shock absorbing
device allowing for automatic rearward deflection of said scraper pivoting around
20 said frontward end from a standard position to a fully deflected position when
hitting an obstacle and said retracting member allowing for retracting and
extracting said retractable assembly in up and down position along said side of
said vehicle respectively.

25 2. A retractable assembly as defined in claim 1, wherein said
moving part of said shock absorbing device being slidably secured to said fixed
part.

3. A retractable assembly as defined in claim 1, wherein said scraper, shock absorbing device and retracting member being generally laid within a same horizontal plane.

5 4. A retractable assembly as defined in claim 2, wherein said second end of said retracting member being rotatably secured to said side of said vehicle rearwardly of said scraper and said fixed part of said shock absorbing device being rigidly secured to said scraper in proximity of said frontward end, said moving part being generally rearwardly of and linearly moving relative to said
10 fixed part in a direction generally parallel to said scraper.

5 6. A retractable assembly as defined in claim 2, wherein said second end of said retracting member being rotatably secured to said scraper in proximity of said free end of the same and said fixed part of said shock absorbing
15 device being rigidly secured to said vehicle rearwardly of said scraper, said moving part being generally frontwardly of and linearly moving relative to said fixed part in a direction generally parallel to said side of said vehicle.

20 7. A retractable assembly as defined in claim 6, wherein said shock absorbing device including a guiding member for guiding said moving part slidably mounted on said fixed part.

7. A retractable assembly as defined in claim 6, wherein said moving part of said shock absorbing device being a carriage and said guiding

member being at least one roller rotatably mounted on said carriage for rollingly engaging a corresponding guiding rail of said fixed part.

8. A retractable assembly as defined in claim 2, wherein said
5 absorber member being a damping member.

9. A retractable assembly as defined in claim 8, wherein said
damping member being a pneumatic linear actuator.

10. A retractable assembly as defined in claim 8, wherein said
10 damping member being a typical pneumatic damping suspension.

11. A retractable assembly as defined in claim 1, wherein said
shock absorbing device being a kit retrofitted on said scraper and retracting
15 member, the latter two having been previously assembled together on said side
of said vehicle.

12. A retractable assembly as defined in claim 4, wherein said
retracting member and said scraper defining within a generally horizontal plane
20 an internal angle greater than 90 degrees.

13. A retractable assembly as defined in claim 4, further comprising
a hydraulic ram actuator having a first extremity pivotally mounted to said free
end of said scraper outwardly of said moving part of said shock absorbing device
25 and a second extremity abutting said moving part, said actuator pushing said

moving part toward said fixed part in a partially deflected position of said scraper when activated by an operator via a hydraulic network, thus limiting free automatic deflection of said scraper between said partially deflected and said fully deflected positions.

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14. A retractable assembly as defined in claim 5, further comprising a hydraulic ram actuator having a first extremity pivotally mounted to said side of said vehicle frontwardly of said moving part of said shock absorbing device and a second extremity abutting said moving part, said actuator pushing said moving part toward said fixed part in a partially deflected position of said scraper when activated by an operator via a hydraulic network, thus limiting free automatic deflection of said scraper between said partially deflected and said fully deflected positions.

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15. A retractable assembly as defined in claim 1, further comprising a resilient member secured to said free end of said scraper and slightly extending out of the same and adapted to take lateral hit instead of said free end to protect the same from lateral vertical obstacles.

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16. A retractable assembly as defined in claim 15, wherein said resilient member including at least one resilient roller freely rotatably mounted on a generally vertical shaft rigidly supported by brackets secured to said free end of said scraper.

17. A retractable assembly as defined in claim 16, wherein said at least one resilient roller being made out of rubber type material.

18. A retractable assembly as defined in claim 12, further
5 comprising a resilient member secured to said free end of said scraper and slightly extending out of the same and adapted to take lateral hit instead of said free end to protect the same from lateral vertical obstacles.

19. A retractable assembly as defined in claim 18, wherein said
10 resilient member including at least one resilient roller freely rotatably mounted on a generally vertical shaft rigidly supported by brackets secured to said free end of said scraper.

20. A retractable assembly as defined in claim 19, wherein said at
15 least one resilient roller being made out of rubber type material.